

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claim 1 is amended. The revision to claim 1 is supported, for example, at Figure 9 and page 18, line 36 through page 19, line 22 in the specification. New claims 32-41 have been added. New claim 32 is supported, for example, by original claim 6, and at page 15, lines 21-34 of the specification. New claim 33 is supported, for example, at original claim 26, and at page 22, lines 5-10 of the specification. New claim 34 is supported, for example, at original claim 27. New claims 35-41 are supported, for example, at original claims 19-25, respectively.

Claims 1, 7, 8, and 32-41 are pending, with claims 1 and 33 being independent.

Drawing objection

The drawings have been objected to by the Examiner. Proposed drawing corrections, designating Figures 23-26 as "Prior Art", are attached.

Claim rejections - 35 U.S.C. § 103

Claims 1, 3-8, 28, and 30 stand rejected as being unpatentable over Applicants' Admitted Prior Art (APA) JP 5-314535 (Hiroshi). Applicants respectfully traverse this rejection.

Claim 1 is directed to a method of manufacturing an optical head. The method includes placing the reflecting mirror and the optical bench on an external jig provided with a mirror holding portion for maintaining the reflecting mirror and opposing positioning walls provided on both sides in a horizontal direction of the mirror holding portion. The reflecting mirror and the optical bench are bonded and fixed by filling an adhesive between side faces provided in the optical bench and side faces of the reflecting mirror opposing these side faces. The side faces of the reflecting mirror are in contact with the positioning walls of the external jig and a reflecting plane of the reflecting mirror is in contact with an angle reference plane of the mirror holding portion. By this arrangement, the thickness of the optical head can be reduced. *See, e.g.*, page 18, lines 5-11 of the specification. In addition, since the external jig's positional walls are used to position the reflecting mirror, the dimensional precision of the mirror mounting portion of an optical bench can be relaxed, thereby reducing the cost of the optical bench. *See, e.g.*, page 19, lines 14-22.

As noted by the Examiner, the APA does not teach or suggest an optical head manufactured using an external jig. Thus, the APA cannot teach or suggest the use of an external jig that is provided with a mirror holding portion and positioning walls as recited in claim 1.

Hiroshi does not remedy the deficiencies of the APA. Hiroshi discloses an external jig 13 with a mirror holding portion 131. *See, e.g.*, Figure 7. However, the reflecting mirror 6 is positioned in the y-axis by bringing it into contact with a pair of stepped wall surfaces 11 provided in the carriage 3. The external jig 13 does not have opposing positioning walls that contact the side faces of the reflecting mirror. Accordingly, Hiroshi does not teach or suggest an external jig with opposing position walls. Thus, Hiroshi also cannot teach or suggest a method in which side faces of a reflecting mirror are in contact with the positioning walls of the external jig.

Applicants therefore submit that claim 1 is allowable over the cited references.

Claims 7 and 8 depend from claim 1. Therefore, each of those claims is believed allowable for at least the reason that it is dependent upon an allowable base claim.

Newly presented claims

Claim 32 depends from claim 1 and is also believed allowable for at least the same reasons as claim 1.

Independent claim 33 is directed to a method of manufacturing an optical head. A member for reflecting beams of light is a reflecting mirror obtained by forming a reflection film on a base having a softening point of at least 500°C. The member for reflecting beams of light and the resin optical bench are integrally molded by resin molding at 200°C to 400°C with the member for reflecting beams of light being placed on a mold for molding provided with a fixing portion for maintaining the member for reflecting beams of light.

Neither of the cited references teaches or discloses at least the above features of claim 33. Accordingly, Applicants respectfully submit that claim 33 is allowable over the cited references.


Claims 34-41 depend from claim 33, and are believed allowable for at least the same reasons. Moreover, each of these dependent claims recites additional features in combination with the features of its respective base claim, and is believed allowable in its own right. Individual consideration of the dependent claims is respectfully requested.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested.

Respectfully submitted,

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Prior Art

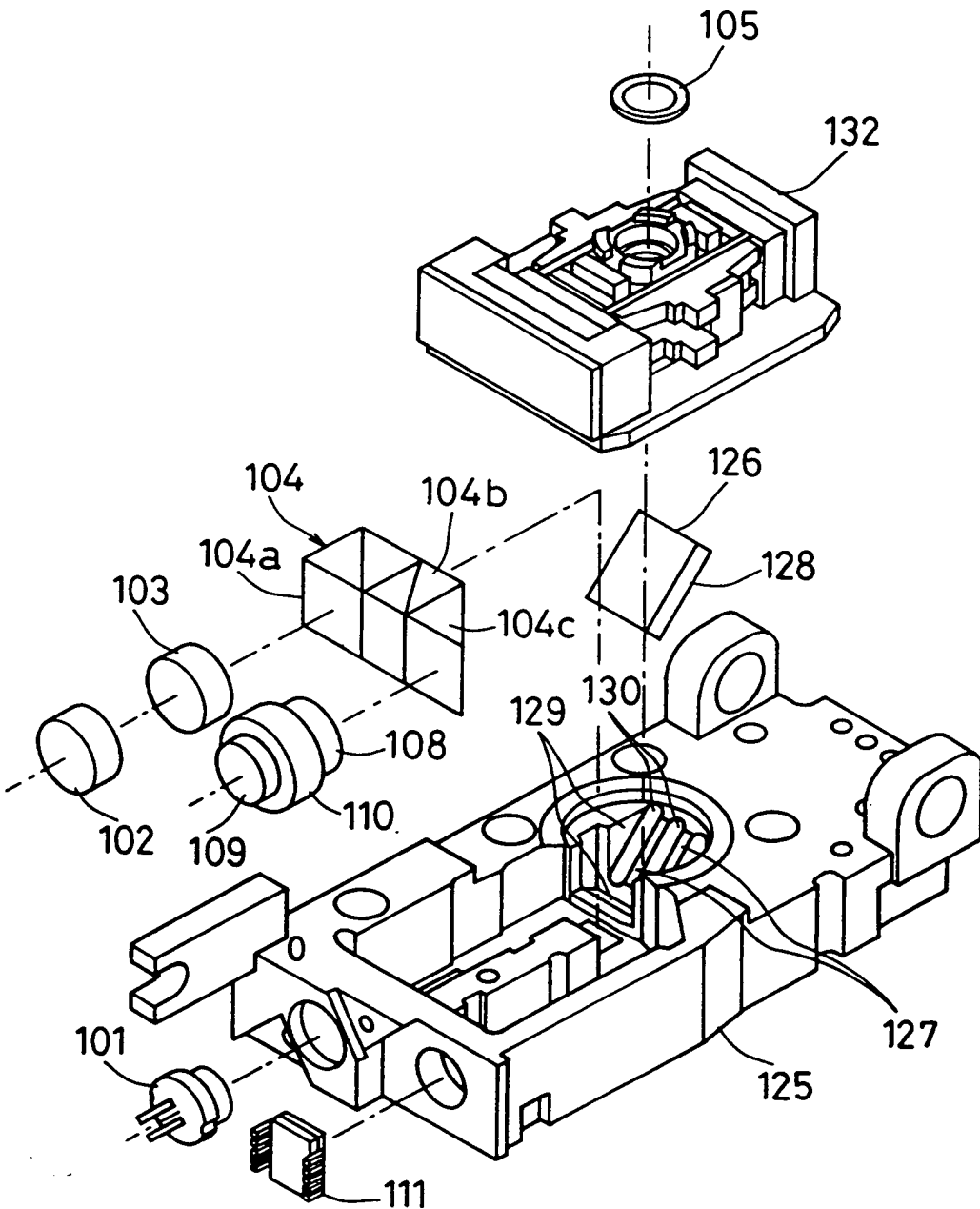
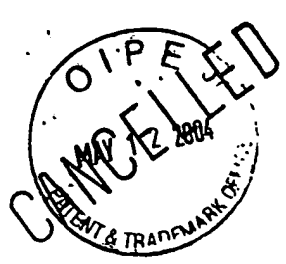


FIG. 23

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Prior Art

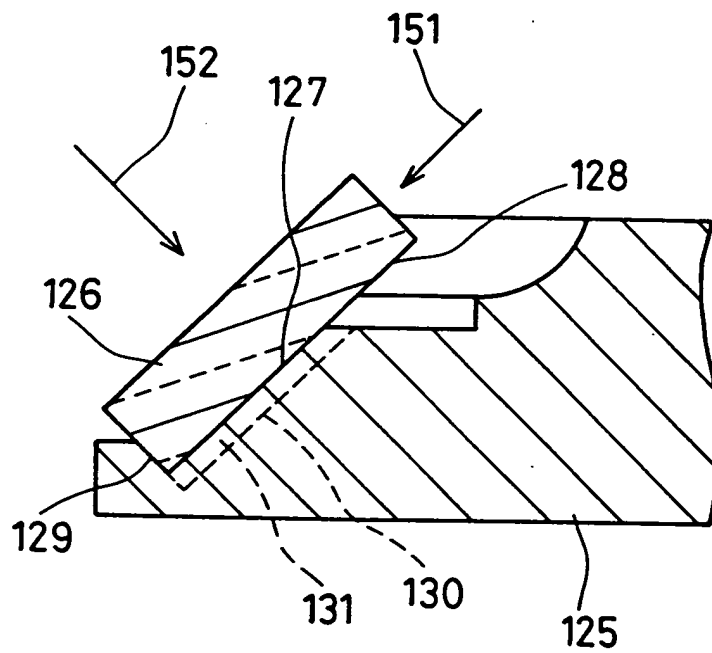
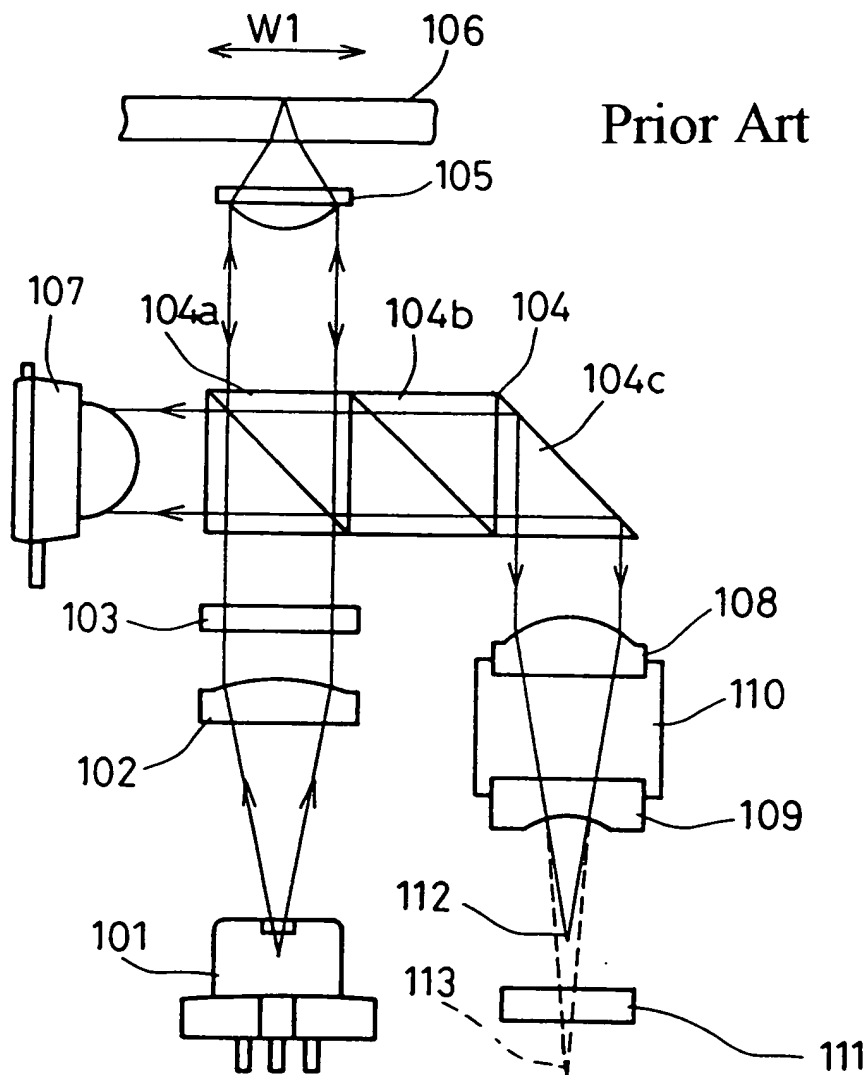


FIG. 24



(A)



(B)

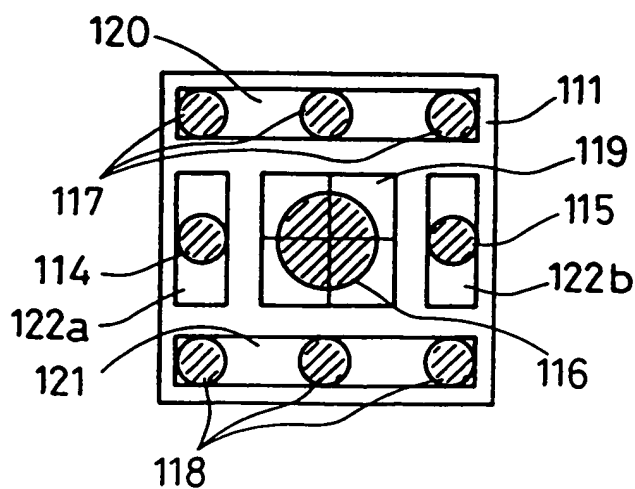


FIG. 25

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Prior Art

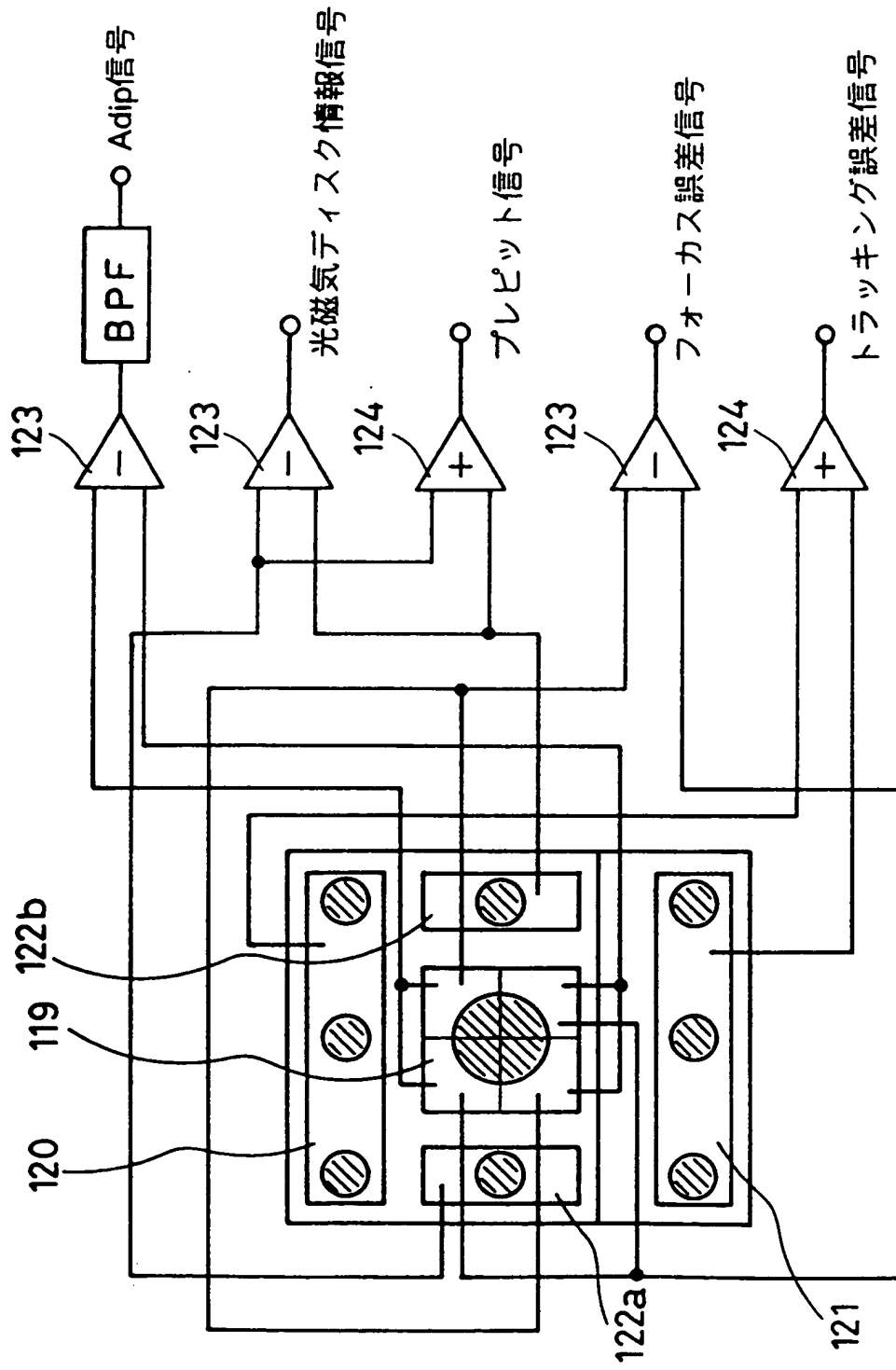


FIG. 26

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